

Claims

1. A backwashable filtering device for thermoplastic plastics material, comprising a housing (1) in which at least one feed channel (2) is provided for the material to be filtered and at least one delivery channel (3) is provided for the filtered material, and comprising at least one carrying body (4) which is arranged in the housing (1), carries at least two nests of screens (8, 9) and is displaceable in the housing (1) between a filtering position and at least one backwashing position associated with a nest of screens (8, 9), wherein, in the filtering position, distribution chambers (14, 15) arranged on the inflow side of the nests of screens (8, 9) are fluidically connected to at least one feed channel (2) via inflow channels (10, 11), and collecting chambers (16, 17) arranged on the outflow side of the nests of screens (8, 9) are fluidically connected to at least one delivery channel (3) via outflow channels (18, 19), and, in the backwashing position of the carrying body (4), filtered material passes from the collecting chamber (16, 17) of one nest of screens (8, 9), through a backwashing channel (23) arranged in the carrying body (4) and into the collecting chamber (16, 17) of another nest of screens (8, 9) to be cleaned and, when the outflow channel (18, 19) of this other nest of screens (8, 9) is closed, is dischargeable together with the impurities from this nest of screens (8, 9) into a backwashing outlet channel (38) via the distribution chamber (14, 15) of this nest of screens (8, 9), characterised in that at least one control body (31), which is displaceable in the housing (1) relative to the carrying body (4), is associated with each nest of screens (8, 9) for the backwashing of this nest of screens (8, 9) portion by portion, each of these control bodies (31) forming a discharge channel (36) which, in the backwashing position, is fluidically connected to at least one

backwashing outlet channel (38) via at least one control opening (37).

2. A device according to claim 1, characterised in that at least two control bodies (31), which are displaceable independently of one another, are provided for each nest of screens (8, 9), each control body (31) being associated with a portion (14', 14'', 15', 15'') of the nest of screens (8, 9) for the backwashing of that portion.
3. A device according to claim 1 or 2, characterised in that each control body (31) is formed by a slider (34) which is displaceable in its longitudinal direction and/or rotatable about its longitudinal axis, wherein the discharge channel (36) extends in the axial direction of the slider (34) and each control opening (37) pierces the wall of the discharge channel (36).
4. A device according to claim 3, characterised in that at least one slider (34) has at least two control openings (37) which, for a displaceable slider, are spaced apart in the longitudinal direction of the slider (34) and, for a rotatable slider (34), are spaced apart in the circumferential direction of the slider.
5. A device according to claim 3 or 4, characterised in that each control body (31) is formed by a tube which is displaceably and/or rotatably guided in a bore (35) of the housing (1).
6. A device according to any one of claims 1 to 5, characterised in that each backwashing outlet channel (38) is arranged substantially centrally in relation to its associated portion (14', 14'', 15', 15'') of the nest of screens (8, 9).

7. A device according to any one of claims 1 to 6, characterised in that at least one nest of screens (8, 9) has two curved perforated plates (12, 13), between which is arranged a filter insert (33) which is circular when laid flat, wherein the two perforated plates (12, 13) are inserted into a receiving opening (32) in the carrying body (4), the receiving opening (32) having an oval cross-section corresponding to the curvature of the perforated plates (12, 13) when seen in the axial direction of the receiving opening (32), and wherein the perforated plates (12, 13) are arranged so that their convex side lies on the inflow side during the filtering process.
8. A device according to any one of claims 1 to 7, characterised in that, in the case of at least one nest of screens (8, 9), the collecting chamber (16, 17) is divided into collecting-chamber portions by at least one wall (21) supporting the perforated plates (12, 13).